

Report No.: MSL-31-7

Test Time: 2020-12-17 15:04

Luminaire Property

Luminaire Manufacturer: Stand Iluminaciones S.A.S

Luminaire Category: Interior

Luminaire Description: Bala Stil Led Flat 22W Sellada

Luminous Length (mm): 190 Diametro

Luminous Width (mm): 190 Diametro

Voltage: 120.0 V

Current: 0.180 A

Power: 21.45 W

Power Factor: 0.993

Photometric Results

CIE Class: Direct

Total Rated Lamp Lumens: 2208.0 lm

Measurement Flux: 2208 lm

Efficiency: 100%

Downward Ratio: 100%

Upward Ratio: 0%

Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 164.4, 164.1, 164.3, 164.2

Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 110.5, 110.4, 110.7, 110.2

Luminaire Efficacy Rating (LER): 102.99

Central Intensity: 778.89 cd

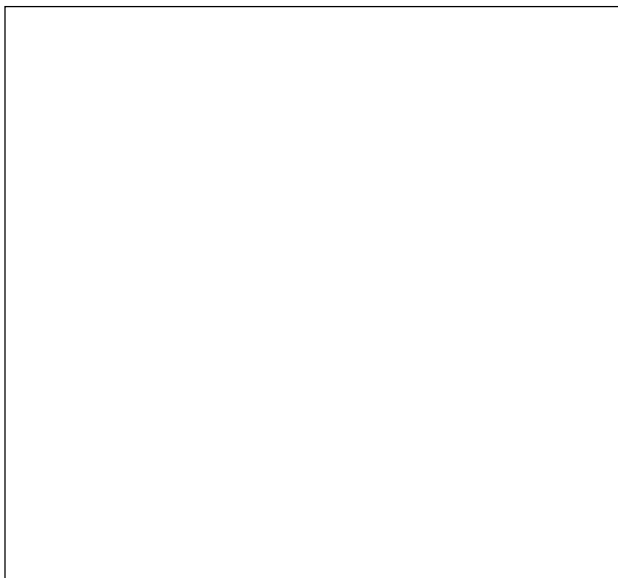
Max. Intensity: 779.27 cd

Pos of Max. Intensity: H10 V0

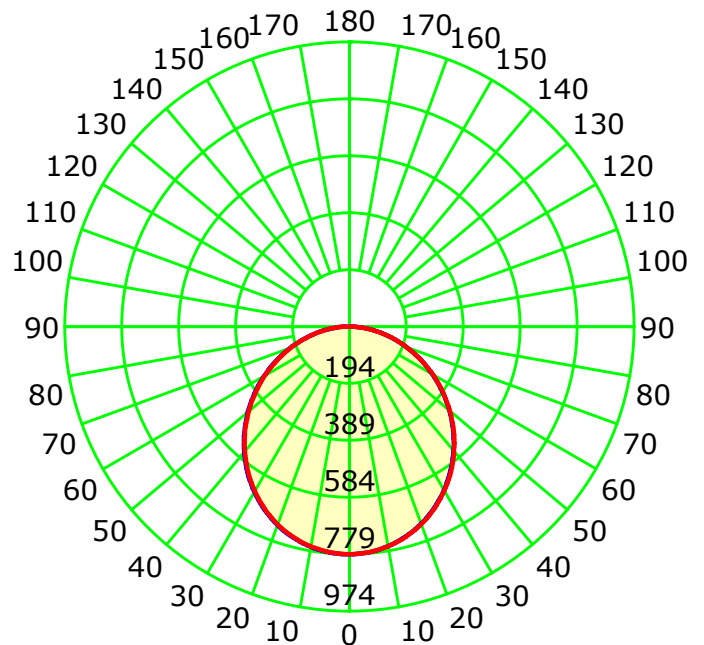
S/MH(C0/C180): 1.24

S/MH(C90/C270): 1.24

Picture Of Luminaire



Luminous Intensity Distribution Curve



Unit: cd

Average Diffuse Angle(50%): 110.5°

C Plane (°):0.0-360.0: 10.0

Gamma Plane (°):0.0-90.0:1.0

Test Lab:

Test Device: LSG-1700B — C90-C270

Test Type: TYPE C

Distance: 11.700 m

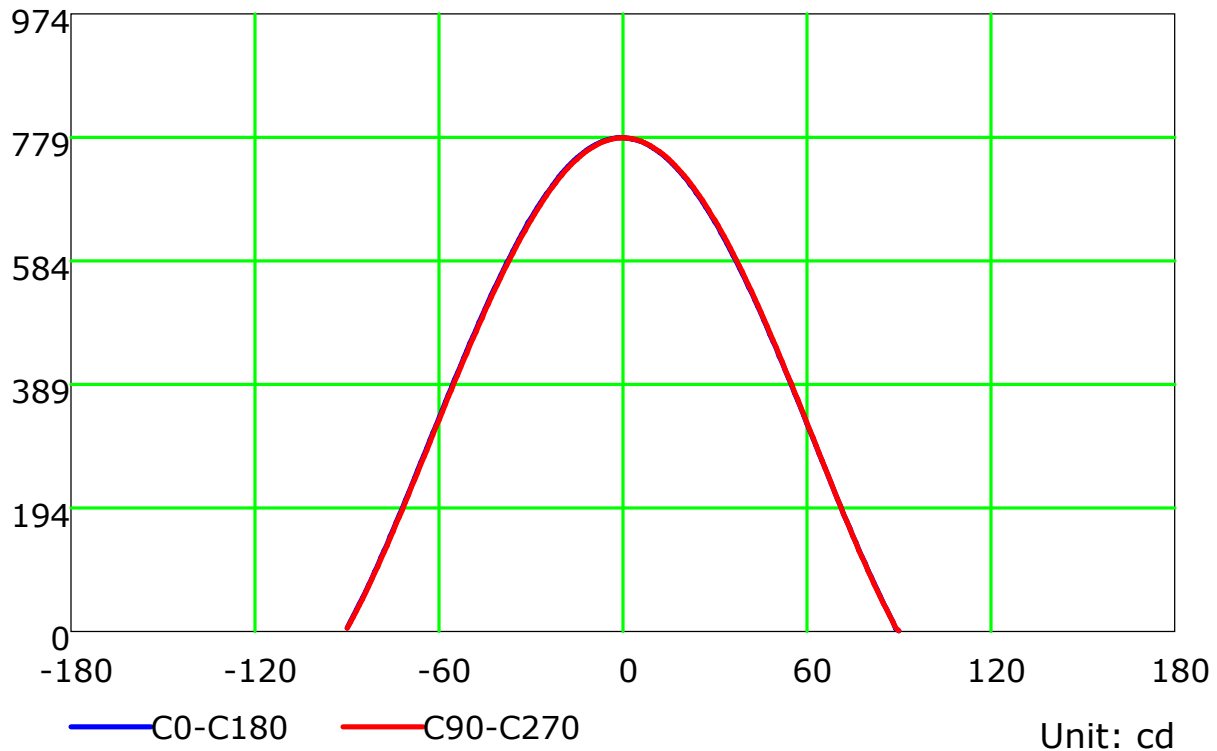
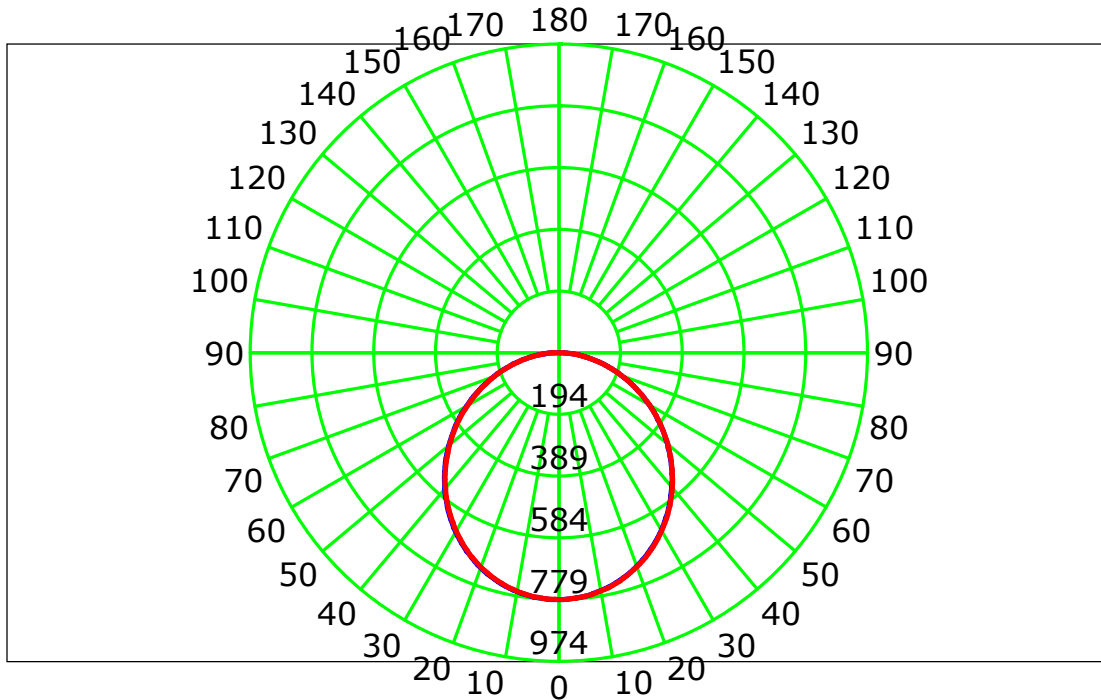
Temperature: 25.4

Humidity:

Operator: Cristian Herrera Arismendy

Inspector:

Luminous Intensity Distribution Curve



C Plane (°):0.0-360.0: 10.0

Test Lab:

Test Type: TYPE C

Temperature: 25.4

Operator: Cristian Herrera Arismendy

Gamma Plane (°):0.0-90.0:1.0

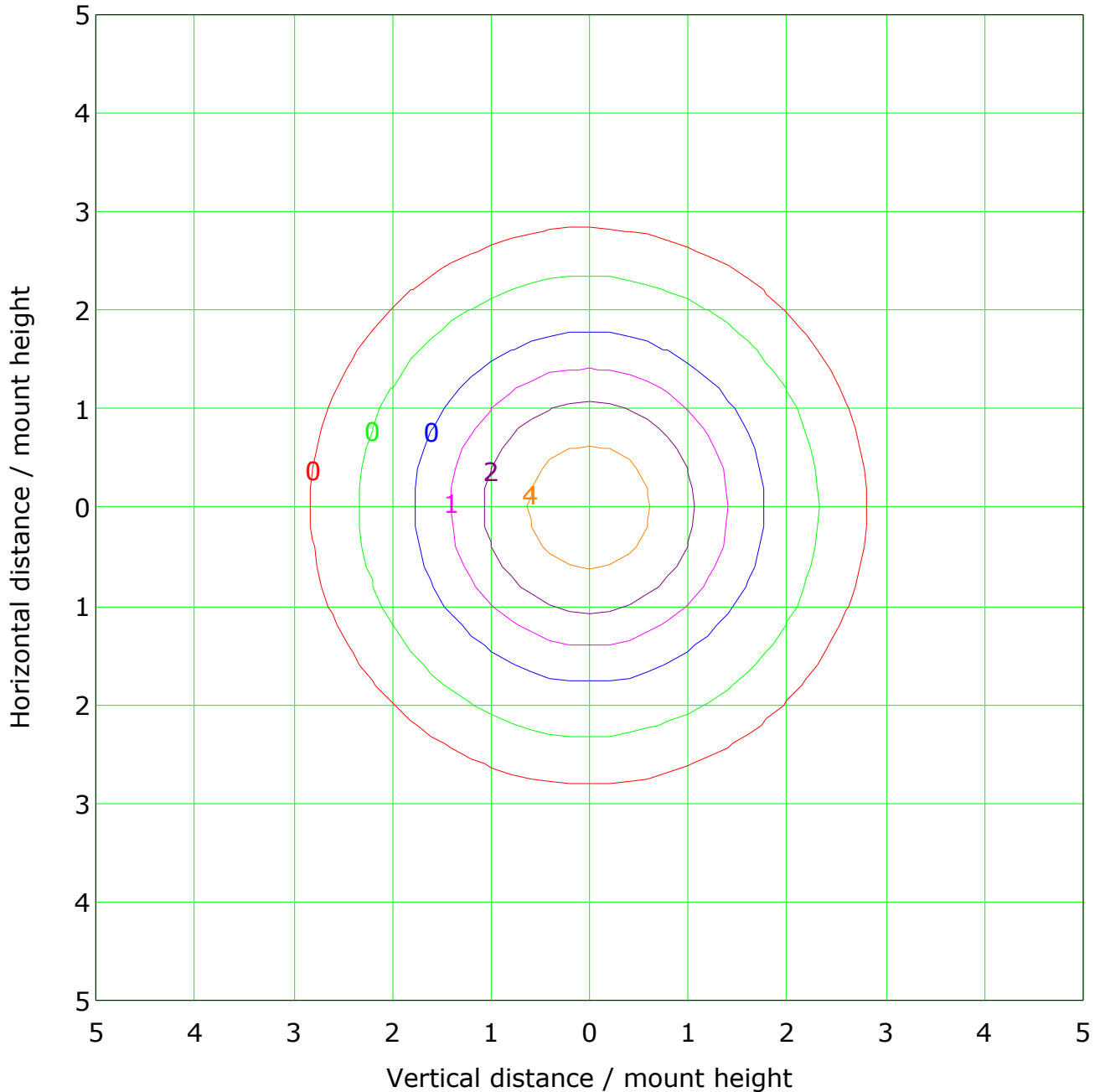
Test Device: LSG-1700B

Distance: 11.700 m

Humidity:

Inspector:

IsoLux Plot



Mounting Height: 10.0m Max Lux(100%): 7.8 lx

— (1%): 0.1 lx — (2%): 0.2 lx
— (5%): 0.4 lx — (10%): 0.8 lx
— (20%): 1.6 lx — (100%): 7.8 lx

C Plane (°):0.0-360.0: 10.0

Test Lab:

Test Type: TYPE C
 Temperature: 25.4

Operator: Cristian Herrera Arismendy

Gamma Plane (°):0.0-90.0:1.0

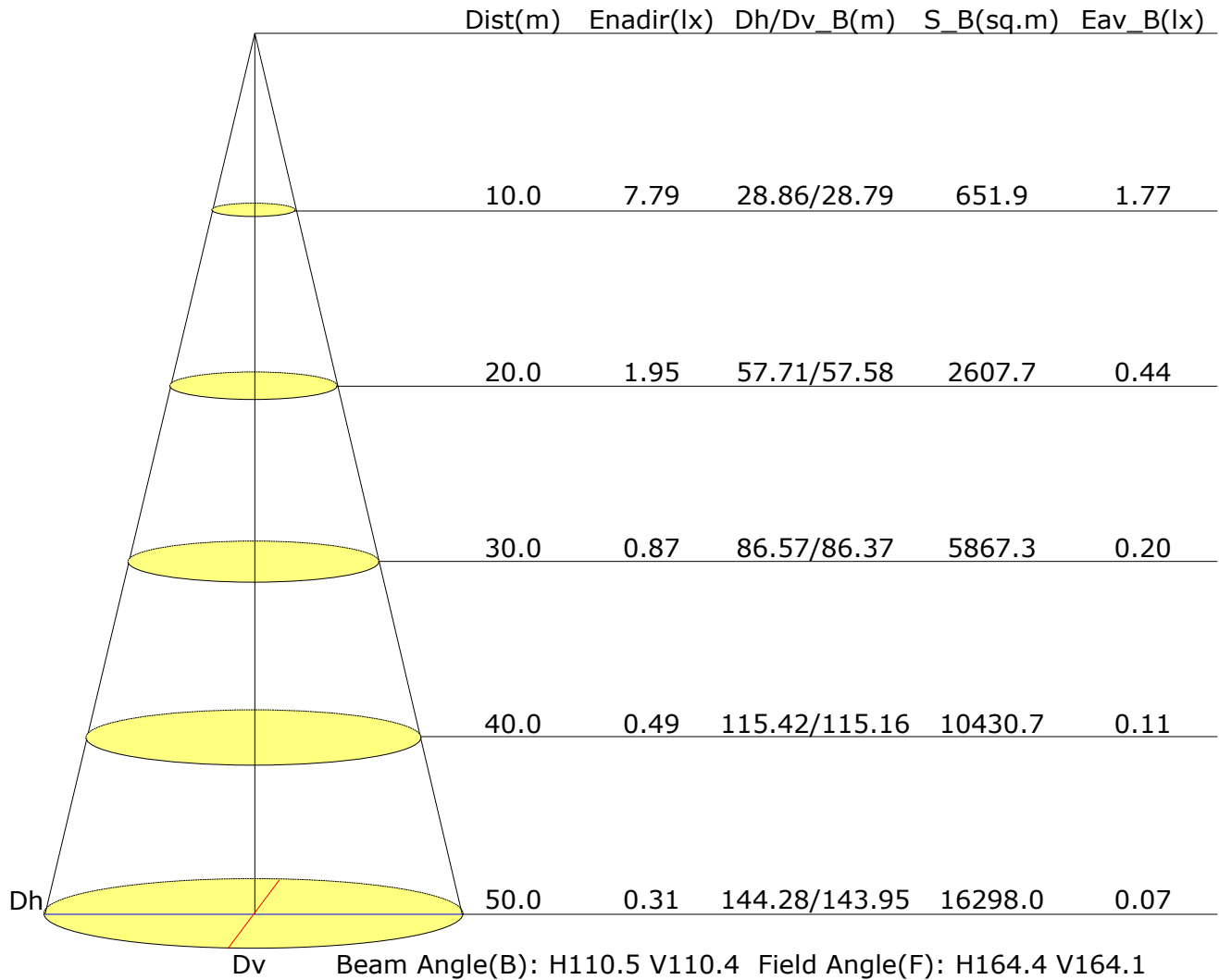
Test Device: LSG-1700B lx

Distance: 11.700 m

Humidity:

Inspector:

Illuminance at a Distance



C Plane (°):0.0-360.0: 10.0

Test Lab:

Test Type: TYPE C

Temperature: 25.4

Operator: Cristian Herrera Arismendy

Gamma Plane (°):0.0-90.0:1.0

Test Device: LSG-1700B

Distance: 11.700 m

Humidity:

Inspector:

UGR Table

Reflectance:										
Ceiling (cavity)	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions	Viewed crosswise					Viewed endwise				
X=2H Y=2H	22.7	24.1	23.0	24.4	24.6	22.8	24.2	23.1	24.4	24.6
3H	24.3	25.6	24.7	25.9	26.2	24.4	25.7	24.7	25.9	26.2
4H	25.0	26.2	25.4	26.5	26.8	25.1	26.3	25.4	26.6	26.9
6H	25.6	26.7	25.9	27.0	27.3	25.6	26.7	26.0	27.1	27.4
8H	25.8	26.8	26.1	27.2	27.5	25.8	26.9	26.2	27.2	27.6
12H	25.9	26.9	26.3	27.3	27.6	26.0	27.0	26.4	27.3	27.7
X=4H Y=2H	23.4	24.6	23.8	24.9	25.2	23.4	24.7	23.8	24.9	25.2
3H	25.2	26.3	25.6	26.6	26.9	25.3	26.3	25.6	26.6	27.0
4H	26.0	27.0	26.5	27.3	27.7	26.1	27.0	26.5	27.4	27.8
6H	26.7	27.6	27.2	27.9	28.3	26.8	27.6	27.2	28.0	28.4
8H	27.0	27.8	27.4	28.2	28.6	27.0	27.8	27.5	28.2	28.6
12H	27.2	27.9	27.6	28.3	28.7	27.3	27.9	27.7	28.4	28.8
X=8H Y=4H	26.4	27.2	26.8	27.6	28.0	26.4	27.2	26.9	27.6	28.0
6H	27.2	27.9	27.7	28.3	28.8	27.3	27.9	27.7	28.3	28.8
8H	27.6	28.2	28.1	28.6	29.1	27.6	28.2	28.1	28.6	29.1
12H	27.9	28.4	28.4	28.8	29.3	27.9	28.4	28.4	28.9	29.4
X=12H Y=4H	26.4	27.1	26.9	27.5	28.0	26.5	27.1	26.9	27.6	28.0
6H	27.3	27.9	27.8	28.3	28.8	27.4	27.9	27.9	28.4	28.9
8H	27.7	28.2	28.2	28.7	29.2	27.8	28.3	28.3	28.7	29.2
Variations with the observer position at spacings:										
S=1.0H	+0.2/-0.2					+0.2/-0.1				
S=1.5H	+0.4/-0.5					+0.3/-0.4				
S=2.0H	+0.5/-0.8					+0.5/-0.8				

Calculate in accordance with CIE Pub.117. The table is revised with 2208lm ($8\log(F/F_0) = 2.8$).

C Plane (°):0.0-360.0: 10.0

Test Lab:

Test Type: TYPE C

Temperature: 25.4

Operator: Cristian Herrera Arismendy

Gamma Plane (°):0.0-90.0:1.0

Test Device: LSG-1700B

Distance: 11.700 m

Humidity:

Inspector:

Zonal Lumen

Gamma [°]	Imean [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
0.0-1.0	778.7	0.7	0.7	0.03	0.03
1.0-2.0	778.4	2.2	3.0	0.10	0.13
2.0-3.0	777.8	3.7	6.7	0.17	0.30
3.0-4.0	776.9	5.2	11.9	0.24	0.54
4.0-5.0	775.7	6.7	18.6	0.30	0.84
5.0-6.0	774.2	8.1	26.7	0.37	1.21
6.0-7.0	772.4	9.6	36.3	0.43	1.64
7.0-8.0	770.3	11.0	47.3	0.50	2.14
8.0-9.0	767.9	12.4	59.8	0.56	2.71
9.0-10.0	765.2	13.8	73.6	0.63	3.33
10.0-11.0	762.2	15.2	88.9	0.69	4.02
11.0-12.0	759.0	16.6	105.4	0.75	4.78
12.0-13.0	755.5	17.9	123.4	0.81	5.59
13.0-14.0	751.6	19.2	142.6	0.87	6.46
14.0-15.0	747.4	20.5	163.1	0.93	7.39
15.0-16.0	743.0	21.8	184.9	0.99	8.37
16.0-17.0	738.3	23.0	207.9	1.04	9.42
17.0-18.0	733.4	24.2	232.1	1.10	10.51
18.0-19.0	728.1	25.3	257.4	1.15	11.66
19.0-20.0	722.6	26.5	283.9	1.20	12.86
20.0-21.0	716.9	27.5	311.4	1.25	14.10
21.0-22.0	710.8	28.6	340.0	1.29	15.40
22.0-23.0	704.5	29.6	369.5	1.34	16.74
23.0-24.0	697.9	30.5	400.1	1.38	18.12
24.0-25.0	691.0	31.4	431.5	1.42	19.54
25.0-26.0	684.1	32.3	463.8	1.46	21.00
26.0-27.0	676.7	33.1	496.9	1.50	22.50
27.0-28.0	669.2	33.9	530.8	1.53	24.04
28.0-29.0	661.6	34.6	565.4	1.57	25.61
29.0-30.0	653.5	35.3	600.7	1.60	27.20
30.0-31.0	645.3	35.9	636.6	1.63	28.83
31.0-32.0	636.8	36.5	673.1	1.65	30.48
32.0-33.0	628.1	37.0	710.1	1.68	32.16
33.0-34.0	619.6	37.5	747.6	1.70	33.86
34.0-35.0	610.4	37.9	785.5	1.72	35.57
35.0-36.0	601.1	38.3	823.8	1.73	37.31

C Plane (°):0.0-360.0: 10.0

Test Lab:

Test Type: TYPE C

Temperature: 25.4

Operator: Cristian Herrera Arismendy

Gamma Plane (°):0.0-90.0:1.0

Test Device: LSG-1700B

Distance: 11.700 m

Humidity:

Inspector:

Zonal Lumen (Continue 1)

Gamma [°]	Imean [cd]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
36.0-37.0	591.8	38.6	862.4	1.75	39.06
37.0-38.0	582.1	38.9	901.2	1.76	40.82
38.0-39.0	572.5	39.1	940.3	1.77	42.59
39.0-40.0	562.5	39.2	979.6	1.78	44.36
40.0-41.0	552.3	39.3	1018.9	1.78	46.14
41.0-42.0	542.4	39.4	1058.3	1.78	47.93
42.0-43.0	531.9	39.4	1097.7	1.78	49.71
43.0-44.0	521.2	39.3	1137.1	1.78	51.50
44.0-45.0	510.7	39.2	1176.3	1.78	53.27
45.0-46.0	499.7	39.1	1215.4	1.77	55.04
46.0-47.0	488.9	38.9	1254.3	1.76	56.81
47.0-48.0	477.8	38.6	1292.9	1.75	58.55
48.0-49.0	466.5	38.3	1331.2	1.74	60.29
49.0-50.0	455.6	38.0	1369.2	1.72	62.01
50.0-51.0	444.1	37.6	1406.8	1.70	63.71
51.0-52.0	432.5	37.1	1443.9	1.68	65.39
52.0-53.0	421.2	36.6	1480.6	1.66	67.05
53.0-54.0	409.4	36.1	1516.6	1.63	68.69
54.0-55.0	397.9	35.5	1552.2	1.61	70.30
55.0-56.0	386.1	34.9	1587.1	1.58	71.88
56.0-57.0	374.2	34.2	1621.3	1.55	73.43
57.0-58.0	362.7	33.5	1654.8	1.52	74.95
58.0-59.0	350.7	32.8	1687.6	1.49	76.43
59.0-60.0	338.6	32.0	1719.6	1.45	77.88
60.0-61.0	326.7	31.2	1750.8	1.41	79.29
61.0-62.0	314.7	30.3	1781.1	1.37	80.67
62.0-63.0	302.9	29.5	1810.6	1.33	82.00
63.0-64.0	290.8	28.5	1839.1	1.29	83.29
64.0-65.0	278.7	27.6	1866.7	1.25	84.54
65.0-66.0	267.0	26.6	1893.4	1.21	85.75
66.0-67.0	255.0	25.6	1919.0	1.16	86.91
67.0-68.0	243.1	24.6	1943.6	1.12	88.03
68.0-69.0	231.2	23.6	1967.2	1.07	89.09
69.0-70.0	219.1	22.5	1989.7	1.02	90.11
70.0-71.0	207.6	21.5	2011.2	0.97	91.08
71.0-72.0	195.8	20.4	2031.5	0.92	92.01

C Plane (°):0.0-360.0: 10.0

Test Lab:

Test Type: TYPE C

Temperature: 25.4

Operator: Cristian Herrera Arismendy

Gamma Plane (°):0.0-90.0:1.0

Test Device: LSG-1700B

Distance: 11.700 m

Humidity:

Inspector:

